I CLAIM AS MY INVENTION:

1. A method of annealing a magnetic amorphous alloy article comprising the steps of:

(a) providing an unannealed amorphous alloy article having an alloy composition and a longitudinal axis;

(b) disposing said unannealed amorphous alloy article in a zone of elevated temperature while subjecting said amorphous alloy to a tensile force along said longitudinal axis to produce an annealed article; and

(c) selecting said alloy composition to comprise at least iron and nickel and at least one element from the group consisting of Groups Vb and VIb of the periodic table so that the annealed article has an induced magnetic easy plane perpendicular to said longitudinal axis due to said tensile stress.

2. A method as claimed in claim 1 wherein step (a) comprises providing a continuous, unannealed amorphous alloy ribbon as said unannealed amorphous alloy article, and wherein step (b) comprises continuously transporting said ribbon through said zone of elevated temperature.

3. A method as claimed in claim 2 wherein said annealed article has a magnetic property, and wherein step (b) comprises adjusting said tensile stress in a feedback control loop to adjust said magnetic property to a predetermined value.

4. A method as claimed in claim 1 comprising applying a magnetic field to said amorphous alloy article in a direction perpendicular to the longitudinal axis during step (b).

5. A method as claimed in claim 4 wherein said amorphous alloy article has an article plane and comprising applying said magnetic field with a magnitude of at least 2 kOe and a significant component perpendicular to the article plane.

6. A method as claimed in claim 1 wherein step (b) comprises annealing said amorphous alloy article to give said annealed article a magnetic behavior characterized by a hysteresis loop which is linear up to a magnetic field which ferromagnetically saturates said annealed article.

7. A method as claimed in claim 1 wherein step (c) comprises selecting said amorphous alloy composition as $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb, Ta, Cr and V, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 50, *b* is less than or equal to about 4, *c* is between about 30 and about 60, *d* is between about 1 and about 5, *e* is between about 0 and about 2, *x* is between about 0 and about 4, *y* is between about 10 and about 20, *z* is between about 0 and about 3, and d+x+y+z is between about 14 and about 25, and a+b+c+d+e+x+y+z = 100.

8. A method as claimed in claim 1 wherein step (c) comprises selecting said amorphous alloy composition as $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, wherein M is at least one element from the group consisting of Mo, Nb, and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 30 and about 45, *b* is less than or equal to about 3, *c* is between about 30 and about 55, *d* is between about 1 and about 4, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18,

z is between about 0 and about 2, and d+*x*+*y*+*z* is between about 15 and about 22, and a+b+c+d+e+x+y+z = 100.

9. A method as claimed in claim 1 wherein step (c) comprises selecting said amorphous alloy composition as $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb. and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 30, *b* is less than or equal to about 4, *c* is between about 45 and about 60, *d* is between about 1 and about 3, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, d+x+y+z is between about 15 and about 20, and a+b+c+d+e+x+y+z = 100.

10. A method as claimed in claim 1 wherein step (c) comprises selecting said amorphous alloy composition from the group consisting of $Fe_{33}Co_2Ni_{43}Mo_2B_{20}$, $Fe_{35}Ni_{43}Mo_4B_{18}$, $Fe_{36}Co_2Ni_{44}Mo_2B_{16}$, $Fe_{36}Ni_{46}Mo_2B_{16}$, $Fe_{40}Ni_{38}Cu_1Mo_3B_{18}$, $Fe_{40}Ni_{38}Mo_4B_{18}$, $Fe_{40}Ni_{40}Mo_4B_{16}$, $Fe_{40}Ni_{38}Nb_4B_{18}$, $Fe_{40}Ni_{40}Mo_2Nb_2B_{16}$, $Fe_{41}Ni_{41}Mo_2B_{16}$, and $Fe_{45}Ni_{33}Mo_4B_{18}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

11. A method as claimed in claim 1 wherein step (c) comprises selecting said amorphous alloy composition from the group consisting of $Fe_{30}Ni_{52}Mo_2B_{16}$, $Fe_{30}Ni_{52}Nb_1Mo_1B_{16}$, $Fe_{29}Ni_{52}Nb_1Mo_1Cu_1B_{16}$, $Fe_{28}Ni_{54}Mo_2B_{16}$, $Fe_{28}Ni_{54}Nb_1Mo_1B_{16}$, $Fe_{26}Ni_{56}Mo_2B_{16}$, $Fe_{26}Ni_{54}Co_2Mo_2B_{16}$, $Fe_{24}Ni_{56}Co_2Mo_2B_{16}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

12. A method as claimed in claim 1 wherein (a) comprises providing an unannealed amorphous alloy ribbon as said unannealed amorphous alloy article, having a width between about 1 mm and about 14 mm and a thickness between about 15 μm and about 40 μm and wherein step (c) comprises selecting said alloy composition such that said annealed article has a ductility allowing said annealed article to be cut into discrete elongated strips.

13. A method of making a marker for use in magnetomechanical electronic article surveillance system, comprising the steps of:

(a) providing at least one unannealed amorphous alloy article having an alloy composition and a longitudinal axis;

(b) disposing said at least one unannealed amorphous alloy article in a zone of elevated temperature while subjecting said at least one amorphous alloy article to a tensile force along said longitudinal axis to produce at least one annealed article;

(c) selecting said alloy composition to comprise at least iron and nickel and at least one element from the group consisting of Groups Vb and VIb of the periodic table so that said at least one annealed article has an induced magnetic easy plane perpendicular to said longitudinal axis due to said tensile stress;

(d) placing said at least one annealed article adjacent a magnetized ferromagnetic bias element which produces a bias magnetic field; and

(e) encapsulating said at least one annealed article and said bias element in a housing.

14. A method as claimed in claim 13 wherein step (d) comprises placing two of said annealed articles in registration adjacent said magnetized ferromagnetic bias element, and wherein step (e) comprises encapsulating said two annealed articles and said bias element in said housing.

15. A method as claimed in claim 13 wherein step (a) comprises providing a continuous, unannealed amorphous alloy ribbon as said at least one unannealed amorphous alloy article, and wherein step (b) comprises continuously transporting said ribbon through said zone of elevated temperature.

16. A method as claimed in claim 15 wherein said annealed article has a magnetic property, and wherein step (b) comprises adjusting said tensile stress in a feedback control loop to adjust said magnetic property to a predetermined value.

17. A method as claimed in claim 13 comprising applying a magnetic field to said at least one amorphous alloy article in a direction perpendicular to the longitudinal axis during step (b).

18. A method as claimed in claim 17 wherein said at least one amorphous alloy article has an article plane and comprising applying said magnetic field with a magnitude of at least 2 kOe and a significant component perpendicular to the article plane.

19. A method as claimed in claim 13 wherein step (b) comprises annealing said at least one amorphous alloy article to give said at least one annealed article a magnetic behavior characterized by a hysteresis loop which is linear up to a magnetic field which ferromagnetically saturates said annealed article.

20. A method as claimed in claim 13 wherein step (c) comprises selecting said amorphous alloy composition as $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb, Ta, Cr and V, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 50, *b* is less than or equal to about 4, *c* is between about 30 and about 60, *d* is between about 1 and about 5, *e* is between about 0 and about 2, *x* is between about 0 and about 4, *y* is between about 10 and about 20, *z* is between about 0 and about 3, and d+x+y+z is between about 14 and about 25, and a+b+c+d+e+x+y+z = 100.

21. A method as claimed in claim 13 wherein step (c) comprises selecting said amorphous alloy composition as $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, wherein M is at least one element from the group consisting of Mo, Nb, and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 30 and about 45, *b* is less than or equal to about 3, *c* is between about 30 and about 55, *d* is between about 1 and about 4, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, and d+*x*+*y*+*z* is between about 15 and about 22, and a+b+c+d+e+x+y+z = 100.

22. A method as claimed in claim 13 wherein step (c) comprises selecting said amorphous alloy composition as $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb. and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 30, *b* is less than or equal to about 4, *c* is between about 45 and about 60, *d* is between about 1 and about 3, *e* is between about

0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, d+x+y+z is between about 15 and about 20, and a+b+c+d+e+x+y+z = 100.

23. A method as claimed in claim 13 wherein step (c) comprises selecting said

amorphous alloy composition from the group consisting of $Fe_{33}Co_2Ni_{43}Mo_2B_{20}$, $Fe_{35}Ni_{43}Mo_4B_{18}$, $Fe_{36}Co_2Ni_{44}Mo_2B_{16}$, $Fe_{36}Ni_{46}Mo_2B_{16}$, $Fe_{40}Ni_{38}Cu_1Mo_3B_{18}$, $Fe_{40}Ni_{38}Mo_4B_{18}$, $Fe_{40}Ni_{40}Mo_4B_{16}$, $Fe_{40}Ni_{38}Nb_4B_{18}$, $Fe_{40}Ni_{40}Mo_2Nb_2B_{16}$, $Fe_{41}Ni_{41}Mo_2B_{16}$, and $Fe_{45}Ni_{33}Mo_4B_{18}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

24. A method as claimed in claim 13 wherein step (c) comprises selecting said amorphous alloy composition from the group consisting of $Fe_{30}Ni_{52}Mo_2B_{16}$, $Fe_{30}Ni_{52}Nb_1Mo_1B_{16}$, $Fe_{29}Ni_{52}Nb_1Mo_1Cu_1B_{16}$, $Fe_{28}Ni_{54}Mo_2B_{16}$, $Fe_{28}Ni_{54}Nb_1Mo_1B_{16}$, $Fe_{26}Ni_{56}Mo_2B_{16}$, $Fe_{26}Ni_{54}Co_2Mo_2B_{16}$, $Fe_{24}Ni_{56}Co_2Mo_2B_{16}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

25. A method as claimed in claim 13 wherein (a) comprises providing an unannealed amorphous alloy ribbon as said at least one unannealed amorphous alloy article, having a width between about 1 mm and about 14 mm and a thickness between about 15 μm and about 40 μm and wherein step (c) comprises selecting said alloy composition such that said at least one annealed article has a ductility allowing said at least one annealed article to be cut into discrete elongated strips.

26. A resonator for use in a marker in a magnetomechanical electronic article surveillance system, said resonator comprising:

a planar strip of an amorphous magnetostrictive alloy having a longitudinal axis and having a composition comprising at least iron and nickel and at least one element from the group consisting of Groups Vb and VIb of the periodic table, and being annealed at an elevated temperature while being subjected to a tensile force along said longitudinal axis so that said planar strip has an induced magnetic easy plane perpendicular to said longitudinal axis, and having a resonant frequency f_r when driven by an alternating signal burst in an applied bias field H, a linear B-H loop up to at least an applied bias field H of about 8 Oe, a susceptibility $|df_r/dH|$ of said resonant frequency f_r to said applied bias field H which is less than about 1200 Hz/Oe, and a ring-down time of the amplitude to 10% of its value after the signal burst ceases which is at least about 3 ms for a bias field where the amplitude 1 ms after said alternating signal burst ceases has a maximum.

27. A resonator as claimed in claim 26 having a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb, Ta, Cr and V, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 50, *b* is less than or equal to about 4, *c* is between about 30 and about 60, *d* is between about 1 and about 5, *e* is between about 0 and about 2, *x* is between about 0 and about 4, *y* is between about 10 and about 20, *z* is between about 0 and about 3, and d+x+y+z is between about 14 and about 25, and a+b+c+d+e+x+y+z = 100.

28. A resonator as claimed in claim 26 having a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, wherein M is at least one element from the group consisting of Mo, Nb, and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 30 and about 45, *b* is less than or equal to about 3, *c* is between about 30 and about 55, *d* is between about 1 and about 4, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, and d+*x*+*y*+*z* is between about 15 and about 22, and a+b+c+d+e+x+y+z = 100.

29. A resonator as claimed in claim 26 having a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb. and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 30, *b* is less than or equal to about 4, *c* is between about 45 and about 60, *d* is between about 1 and about 3, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, d+x+y+z is between about 15 and about 20, and a+b+c+d+e+x+y+z = 100.

30. A resonator as claimed in claim 26 having a composition from the group consisting of $Fe_{33}Co_2Ni_{43}Mo_2B_{20}$, $Fe_{35}Ni_{43}Mo_4B_{18}$, $Fe_{36}Co_2Ni_{44}Mo_2B_{16}$, $Fe_{36}Ni_{46}Mo_2B_{16}$, $Fe_{40}Ni_{38}Cu_1Mo_3B_{18}$, $Fe_{40}Ni_{38}Mo_4B_{18}$, $Fe_{40}Ni_{40}Mo_4B_{16}$, $Fe_{40}Ni_{38}Nb_4B_{18}$, $Fe_{40}Ni_{40}Mo_2Nb_2B_{16}$, $Fe_{41}Ni_{41}Mo_2B_{16}$, and $Fe_{45}Ni_{33}Mo_4B_{18}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

31. A resonator as claimed in claim 26 having a composition from the group consisting of $Fe_{30}Ni_{52}Mo_2B_{16}$, $Fe_{30}Ni_{52}Nb_1Mo_1B_{16}$, $Fe_{29}Ni_{52}Nb_1Mo_1Cu_1B_{16}$, $Fe_{28}Ni_{54}Mo_2B_{16}$, $Fe_{28}Ni_{54}Nb_1Mo_1B_{16}$, $Fe_{26}Ni_{56}Mo_2B_{16}$, $Fe_{26}Ni_{54}Co_2Mo_2B_{16}$, $Fe_{24}Ni_{56}Co_2Mo_2B_{16}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

32. A resonator as claimed in claim 26 wherein said planar strip has a width between about 1 mm and about 14 mm and a thickness between about 15 μm and about 40 μm.

33. A marker for use in a magnetomechanical electronic article surveillance system, said marker comprising:

a resonator comprising a planar strip of an amorphous magnetostrictive alloy having a longitudinal axis and having a composition comprising at least iron and nickel and at least one element from the group consisting of Groups Vb and VIb of the periodic table, and being annealed at an elevated temperature while being subjected to a tensile force along said longitudinal axis so that said planar strip has an induced magnetic easy plane perpendicular to said longitudinal axis, and having a resonant frequency f_r when driven by an alternating signal burst in an applied bias field H, a linear B-H loop up to at least an applied bias field H of about 8 Oe, a susceptibility $|df_r/dH|$ of said resonant frequency f_r to said applied bias field H which is less than about 1200 Hz/Oe, and a ring-down time of the amplitude to 10% of its value after the signal burst ceases which is at least about 3 ms for a bias field where the amplitude 1 ms after said alternating signal burst ceases has a maximum;

a magnetized ferromagnetic bias element, which produces said applied bias field H, disposed adjacent said planar strip; and

a housing encapsulating said planar strip and said bias element.

34. A marker as claimed in claim 33 wherein said planar strip is a first planar strip, and further comprising a second planar strip substantially identical to said first planar strip, said first planar strip being disposed in said housing in registration with said second planar strip adjacent said bias element.

35. A marker as claimed in claim 33 wherein said resonator has a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb, Ta, Cr and V, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 50, *b* is less than or equal to about 4, *c* is between about 30 and about 60, *d* is between about 1 and about 5, *e* is between about 0 and about 2, *x* is between about 0 and about 4, *y* is between about 10 and about 20, *z* is between about 0 and about 3, and d+x+y+z is between about 14 and about 25, and a+b+c+d+e+x+y+z = 100.

36. A marker as claimed in claim 33 wherein said resonator has a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, wherein M is at least one element from the group consisting of Mo, Nb, and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 30 and about 45, *b* is less than or equal to about 3, *c* is between about 30 and about 55, *d* is between about 1 and about 4, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, and d+*x*+*y*+*z* is between about 15 and about 22, and a+b+c+d+e+x+y+z = 100.

37. A marker as claimed in claim 33 wherein said resonator has a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb. and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 30, *b* is less than or equal to about 4, *c* is between about 45 and about 60, *d* is between about 1 and about 3, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, d+x+y+z is between about 15 and about 20, and a+b+c+d+e+x+y+z = 100.

38. A marker as claimed in claim 33 wherein said resonator has a composition from the group consisting of $Fe_{33}Co_2Ni_{43}Mo_2B_{20}$, $Fe_{35}Ni_{43}Mo_4B_{18}$, $Fe_{36}Co_2Ni_{44}Mo_2B_{16}$, $Fe_{36}Ni_{46}Mo_2B_{16}$, $Fe_{40}Ni_{38}Cu_1Mo_3B_{18}$, $Fe_{40}Ni_{38}Mo_4B_{18}$, $Fe_{40}Ni_{40}Mo_4B_{16}$, $Fe_{40}Ni_{38}Nb_4B_{18}$, $Fe_{40}Ni_{40}Mo_2Nb_2B_{16}$, $Fe_{41}Ni_{41}Mo_2B_{16}$, and $Fe_{45}Ni_{33}Mo_4B_{18}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

39. A marker as claimed in claim 33 wherein said resonator has a composition from the group consisting of $Fe_{30}Ni_{52}Mo_2B_{16}$, $Fe_{30}Ni_{52}Nb_1Mo_1B_{16}$, $Fe_{29}Ni_{52}Nb_1Mo_1Cu_1B_{16}$, $Fe_{28}Ni_{54}Mo_2B_{16}$, $Fe_{28}Ni_{54}Nb_1Mo_1B_{16}$, $Fe_{26}Ni_{56}Mo_2B_{16}$, $Fe_{26}Ni_{54}Co_2Mo_2B_{16}$, $Fe_{24}Ni_{56}Co_2Mo_2B_{16}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

40. A marker as claimed in claim 33 wherein said planar strip has a width between about 1 mm and about 14 mm and a thickness between about 15 μm and about 40 μm.

41. A magnetomechanical electronic article surveillance system comprising:

a marker comprising a resonator comprising a planar strip of an amorphous magnetostrictive alloy having a longitudinal axis and having a composition comprising at least iron and nickel and at least one element from the group consisting of Groups Vb and VIb of the periodic table, and being annealed at an elevated temperature while being subjected to a tensile force along said longitudinal axis so that said planar strip has an induced magnetic easy plane perpendicular to said longitudinal axis, and having a resonant frequency f_r when driven by an alternating signal burst in an applied bias field H, a linear B-H loop up to at least an applied bias field H of about 8 Oe, a susceptibility $|df_r/dH|$ of said resonant frequency f_r to said applied bias field H which is less than about 1200 Hz/Oe, and a ring-down time of the amplitude to 10% of its value after the signal burst ceases which is at least about 3 ms for a bias field where the amplitude 1 ms after said alternating signal burst ceases has a maximum, a magnetized ferromagnetic bias element, which produces said applied bias field H, disposed adjacent said planar strip, and a housing encapsulating said planar strip and said bias element, a transmitter for generating said alternating signal burst to excite said marker for causing said resonator to mechanically resonate and to emit a signal at said resonant frequency f_r;

a receiver for receiving said signal from said resonator at said resonant frequency f_r;

a synchronization circuit connected to said transmitter and to said receiver for activating said receiver to detect said signal at said resonant frequency f_r after the signal burst ceases; and

an alarm, said receiver triggering said alarm if said signal at said resonant frequency f_r from said resonator is detected by said receiver.

42. A magnetomechanical electronic article surveillance system as claimed in claim 41 wherein said resonator has a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb, Ta, Cr and V, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 50, *b* is less than or equal to about 4, *c* is between about 30 and about 60, *d* is between about 1 and about 5, *e* is between about 0 and about 2, *x* is between about 0 and about 4, *y* is between about 10 and about 20, *z* is between about 0 and about 3, and d+x+y+z is between about 14 and about 25, and a+b+c+d+e+x+y+z = 100.

43. A magnetomechanical electronic article surveillance system as claimed in claim 41 wherein said resonator has a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, wherein M is at least one element from the group consisting of Mo, Nb, and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 30 and about 45, *b* is less than or equal to about 3, *c* is between about 30 and about 55, *d* is between about 1 and about 4, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, and d+*x*+*y*+*z* is between about 15 and about 22, and a+b+c+d+e+x+y+z = 100.

44. A magnetomechanical electronic article surveillance system as claimed in claim 41 wherein said resonator has a composition $Fe_aCo_bNi_cM_dCu_eSi_xB_yZ_z$, wherein a, b, c, d, e, x, y and z are in at%, M is at least one element from the group consisting of Mo, Nb. and Ta, and Z is at least one element from the group consisting of C, P and Ge, and wherein *a* is between about 20 and about 30, *b* is less than or equal to about 4, *c* is between about 45 and about 60, *d* is between about 1 and about 3, *e* is between about 0 and about 1, *x* is between about 0 and about 3, *y* is between about 14 and about 18, *z* is between about 0 and about 2, d+x+y+z is between about 15 and about 20, and a+b+c+d+e+x+y+z = 100.

45. A magnetomechanical electronic article surveillance system as claimed in claim 41 wherein said resonator has a composition from the group consisting of $Fe_{33}Co_2Ni_{43}Mo_2B_{20}$, $Fe_{35}Ni_{43}Mo_4B_{18}$, $Fe_{36}Co_2Ni_{44}Mo_2B_{16}$, $Fe_{36}Ni_{46}Mo_2B_{16}$, $Fe_{40}Ni_{38}Cu_1Mo_3B_{18}$, $Fe_{40}Ni_{38}Mo_4B_{18}$, $Fe_{40}Ni_{40}Mo_4B_{16}$, $Fe_{40}Ni_{38}Nb_4B_{18}$, $Fe_{40}Ni_{40}Mo_2Nb_2B_{16}$, $Fe_{41}Ni_{41}Mo_2B_{16}$, and $Fe_{45}Ni_{33}Mo_4B_{18}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

46. A magnetomechanical electronic article surveillance system as claimed in claim 41 wherein said resonator has a composition from the group consisting of $Fe_{30}Ni_{52}Mo_2B_{16}$, $Fe_{30}Ni_{52}Nb_1Mo_1B_{16}$, $Fe_{29}Ni_{52}Nb_1Mo_1Cu_1B_{16}$, $Fe_{28}Ni_{54}Mo_2B_{16}$, $Fe_{28}Ni_{54}Nb_1Mo_1B_{16}$, $Fe_{26}Ni_{56}Mo_2B_{16}$, $Fe_{26}Ni_{54}Co_2Mo_2B_{16}$, $Fe_{24}Ni_{56}Co_2Mo_2B_{16}$, wherein the subscripts are in at% and up to 1.5 at% of B can be replaced by C.

47. A magnetomechanical electronic article surveillance system as claimed in claim 41 wherein said planar strip has a width between about 1 mm and about 14 mm and a thickness between about 15 μm and about 40 μm.

48. A method of annealing and amorphous alloy article comprising the steps of:

providing an unannealed amorphous alloy article having a longitudinal axis and an alloy composition selected to produce a stress-induced anisotropy greater than 0.04 Oe/MPa in said amorphous alloy article when said amorphous alloy article is annealed for six seconds at 360°C and selected to produce a magnetic easy axis perpendicular to said longitudinal axis when a tensile stress is applied along said longitudinal axis during annealing; and

disposing said amorphous alloy article in a zone of elevated temperature, and without a magnetic field other than an ambient magnetic field, while subjecting said amorphous alloy article to a tensile force along said longitudinal axis to produce said anisotropy greater than 0.04 Oe/MPa and said magnetic easy axis in said amorphous alloy article.

49. A method as claimed in claim 48 comprising the step of selecting said alloy composition to produce a stress-induced anisotropy of greater than 0.05 Oe/MPa in said amorphous alloy article when annealed for six seconds at 360°C.

50. A method as claimed in claim 48 wherein the step of disposing said amorphous alloy article in a zone of elevated temperature comprises disposing said amorphous alloy in a zone of elevated temperature having a temperature profile with a maximum temperature between about 300°C and about 420°C for less than one minute.